



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,729	07/02/2003	Kevin T. Chan	14227US01	5781
23446 7590 01/24/2008 MCANDREWS HELD & MALLOY, LTD 500 WEST MADISON STREET SUITE 3400 CHICAGO, IL 60661			EXAMINER DAVENPORT, MON CHERI S	
			ART UNIT	PAPER NUMBER
			2616	
			MAIL DATE	DELIVERY MODE
			01/24/2008	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/612,729

**Applicant(s)**

CHAN, KEVIN T.

**Examiner**

Mon Cheri S. Davenport

**Art Unit**

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) ✓
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-30** rejected under 35 U.S.C. 102(b) as being anticipated by Bontemps et al. (US Patent Number 5,923,663).

It is noted that the language used by Applicant merely suggests or makes optional those features described as “**capable of**” or “adapted to”; such language does not require steps to be performed nor limits the claim to a particular structure. In re Hutchison, 69 USPQ 138. See MPEP 2111.04.

Regarding ***Claims 1, 11, and 21*** Bontemps et al. discloses a method for providing and configuring communication links, the method comprising:

determining any one usable media pair from all existing media pairs(Ethernet 100Base-T4) of a first device(see, figure 3, see col 12, lines 35-38, the Ethernet 100base-t4 configuration, of a automatic media detection circuit( see col. 3, lines 44-46, established a working communication link) working communication link reads on usable media pair);

selecting any one channel (see figure 3, contact pairs 314 to contact pairs 312, signal pairs 322a-d) from all existing channels (see figure 3, different channels from 314 to 312), said selected any one channel being different from a general channel assignment corresponding to

said determined any one usable media pair (see col. 12-13, lines 58-7, the select logic (reads on channel assignment), select and connect the contact pairs); and

assigning said selected any one channel to said any one media pair(see col. 13, lines 30-36, the logic state machine( figure 4), is provided for each of the ports , a link detect signal asserts a xover \_selx signal, which reads on the when the channels are assigned to the media pair, (working communication link)).

Regarding **Claims 2, 12 and 22** Bontemps et al. discloses everything as claimed above (see claims 1, 11 and 21). In addition, the method includes:

wherein said determining further comprises monitoring at least said any one usable media pair(see col. 14, lines 46-54, Phy device knows ( which reads on monitoring) when communication signals are lost).

Regarding **Claims 3, 13 and 23** Bontemps et al. discloses everything as claimed above (see claims 2, 12 and 22). In addition, the method includes:

wherein said monitoring further comprises detecting an existence of a communication signal on said any one usable media pair(see col 4, lines 46-54, when communication signals are lost, DFF toggles until link is detected,)

Regarding **Claims 4, 14 and 24**, Bontemps et al. discloses everything as claimed above (see claims 1, 11, and 21). In addition, the method includes:

further comprising determining which one of said all existing media pairs is capable of facilitating communication at a maximum communication speed (see column 6, lines 6-14, a combination of protocols is also contemplated, the ports may include a first set of ports 10based-T and a second 100Base-TX).

Regarding **Claims 5, 15, and 25**, Bontemps et al. discloses everything as claimed above (see claims 4, 14, and 24). In addition, the method includes:

further comprising cross-connecting said selected any one channel to said one of said all existing media pairs capable of facilitating communication at a maximum communication speed (see column 5-6, line 64-5, each PHY device of each ports would include a crossover function, which includes the appropriate MDI( medium dependant interface, for connecting the appropriate physical medium, which reads on maximum communication speed when appropriate).

Regarding **Claim 6, 16, 26**, Bontemps et al. discloses everything as claimed above (see claims 1, 11, and 21). In addition, the method includes:

further comprising determining which one of said all existing media pairs is capable of operating at a reduced communication speed( see column 6, lines 6-14, a combination of protocols is also contemplated, the ports may include a first set of ports 10based-T and a second 100Base-TX).

Regarding **Claims 7, 17 and 27**, Bontemps et al. discloses everything as claimed above (see claims 6, 16 and 26). In addition, the method includes:

further comprising cross-connecting said selected any one channel to said one of said all existing media pairs(see col. 13, lines 9-28, table of crossover configurations) capable of operating at said reduced communication speed( see column 6, lines 6-14, a combination of protocols is also contemplated, the ports may include a first set of ports 10based-T and a second 100Base-TX).

Regarding **Claims 8, 18 and 28**, Bontemps et al. discloses everything as claimed above (see claims 1, 11, and 21). In addition, the method includes:

flipping at least one of a channel and a media pair assignment( DFF, figure 4) of a previously defined general channel and media pair configuration which defines channel and media pair assignments for at least a portion of said all existing media pairs (see figure 4, section DFF( D-type flip-flop),see col. 13-14, lines 60-2, the DFF asserts the Xover\_sel1 signal at its output, it receives the assignment signal xover\_sel, see also col. 14, lines 46-53, the DFF is in toggle mode, toggling (reads on negotiating) the xover\_sel1 signals) );and

defining said flipped at least one said channel and said media pair assignment as a default channel and media pair configuration(see col. 14, lines 41-45, the PHY device detect a valid communication, and latches (reads on current default channel), to maintain communication link)

Regarding **Claims 9, 19, and 29**, Bontemps et al. discloses everything as claimed above (see claims 1, 11, and 21). In addition, the method includes:

further comprising identifying a status of at least one of said all existing media pairs and at least one of said all existing channels( see column 3, lines 50-52, the physical layer device

monitors its receive input for transmitted communication signals and provided a link detect signal indicative thereof).

Regarding **Claims 10, 20, and 30**, Bontemps et al. discloses everything as claimed above (see claims 9, 19, and 29). In addition, the method includes:

further comprising storing said identified status (see column 3, lines 50-52, the physical layer device monitors its receive input for transmitted communication signals and provided a link detect signal indicative thereof, which reads on storing of status, see also col. 13, lines 30-45, the LINK\_DETECTx signals are used in a logic state machine, which stores current state of the ports).

#### *Citation of Pertinent Prior Art*

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**Dove et al.** (US Patent Number 6,175,865) automatic configuring media connections.

**Berman et al.** (US Patent Number 7,127,624) management of media pairs using MDIX.

#### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mon Cheri S. Davenport whose telephone number is 571-270-1803. The examiner can normally be reached on Monday - Friday 8:00 a.m. - 5:00 p.m. EST.

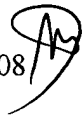
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:  
10/612,729  
Art Unit: 2616

Page 7

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MD/md  
January 20, 2008



*Seema S. Rao*  
SEEMA S. RAO 1/22/08  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2000